

TUBE CONNECTION SYSTEM

Abstract

A fluid fitting assembly for a fluid-tight coupling of a plurality of tube members to a connector member as a unit. A RAM device having proximal surface and an opposite distal surface facing toward the connector member, and a plurality of alignment passages each defined by an alignment passage extending from the proximal face to the distal face for sliding receipt of a respective tube member therethrough. A plurality of ferrule devices is also included each having a proximal tube engaging portion, an opposite distal sealing portion and a tube receiving passage extending from the tube engaging portion to the sealing portion and formed for receipt of a respective tube member therethrough. Each tube engaging portion is formed and dimensioned to contact a respective alignment wall of the RAM device and each the sealing portion of the ferrule device is formed and dimensioned to contact a respective sealing wall of the connector member such that when a compression force is increasingly applied to the RAM device in the direction toward the connector member, the respective alignment walls of the RAM device contact the tube engaging portions of the ferrule devices. The corresponding tube members are then increasingly radially gripped for movement of the ferrule devices and the RAM device, as a unit, toward the connector member to increasingly urge the ferrule device sealing portions into fluid sealing engagement with the connector member sealing wall and to fluidly couple the tube member conduits to the corresponding connector member passages.

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